

Review of Glacier and Rock Glacier changes since the 1950s in the La Laguna catchment, Chile
by Benjamin Aubrey Robson et al.

I found that the methods are appropriate and the discussion and conclusions that are drawn are appropriate and relevant for the readership of The Cryosphere. There are some minor corrections to the text that should be made before publication, but overall I recommend that this work be published.

Detailed comments:

line 14: consider 'rapidly' instead of 'strongly'

line 15: 'less investigated' is comparative please add to this sentence to complete it.

Line 19: it is unclear which glacier you are referring to at this point.

Line 21: suggest that 'strong' not be used as a modifier as it is a bit loose.

Line 23: remove 'in the region' as it is repetitive from the last sentence.

Line 35: Better if this paragraph was a bit longer.

Line 40-42: It is not clear why this needs to be an either or situation.

Line 45: would add an e.g. here as the citation list is not exhaustive

Line 55: The citations are not in the correct order starting with oldest and progressing to youngest. Correction should be applied throughout.

Line 82. maybe use 'agricultural production' 'worth' instead of 'of'. Also correct typo associated with 'industry'

Figure 1. The blue stars are hard to read in this figure and the red stars overlap. Consider a white outline of the markers? Caption: Correct typos 'Location of the La Laguna catchment and of landforms studies in this paper. Three landforms that will be discussed' in the text are highlighted in (A).

Table 1: 'For the imagery that were used to produce DEMs, the RMSE values for the Ground Control Points and Tie Points are shown.' You can remove 'that were'

Line 109: 'The data *were*'

Line 127: 'over' to 'on'

Line 132: can cut 'for this area'

Table 2. Would be helpful to signify in the figure by the bottom row is in italics.

Figure 3. It is difficult to read these lines.

Figure 4. y-axis needs a label.

Line 351. Remove 'as'

Figure 8. A-A' (etc.) should be labeled in Figure 1.

Line 398. need a '.' here.

Line 448. remove 'as'

Line 467. Additionally Anderson et al., 2018 point simply to climate warming as a cause of the transition between debris-covered and rock glaciers.

Line 496. would be helpful to cite who has used this approach in the past.

References

Anderson, R. S., Anderson, L. S., Armstrong, W. H., Rossi, M. W., and Crump, S. E.: Glaciation of alpine valleys: The glacier – debris-covered glacier – rock glacier continuum, 311, 127–142, <https://doi.org/10.1016/j.geomorph.2018.03.015>, 2018.